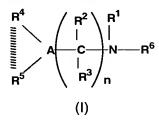
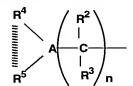
## **CLAIMS**

1. A compound represented by formula (I):



5 wherein A represents CH or N;

R¹ represents hydrogen and R6 represents –CH₂C(R7)(OH)CH₂OR8; or



R<sup>1</sup> represents

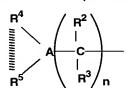
and R<sup>6</sup> represents -CH₂C(R<sup>7</sup>)(OH)CH₂OR<sup>8</sup>;

or

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 $R^1$  represents  $-CH_2C(R^7)(OH)CH_2OR^8$  and  $R^6$  represents an alkyl or alkenyl group having  $C_4$ - $C_{36}$  carbon atoms; or

R¹ represents hydrogen and R6 represents –CH₂C(R7)(OH)R8; or



R<sup>1</sup> represents

and R<sup>6</sup> represents -CH<sub>2</sub>C(R<sup>7</sup>)(OH)R<sup>8</sup>; or

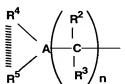
R<sup>1</sup> represents –CH<sub>2</sub>C(R<sup>7</sup>)(OH)R<sup>8</sup> and R<sup>6</sup> represents an alkyl or alkenyl group having C<sub>4</sub>-C<sub>36</sub> carbon atoms;

15 R<sup>2</sup> and R<sup>3</sup> each represent hydrogen or an alkyl or alkenyl group having C<sub>1</sub>-C<sub>6</sub> carbon atoms:

 $R^4$  and  $R^5$  each represent an alkyl group having  $C_1$ - $C_6$  carbon atoms when A represents N; or

 $\mbox{R}^{4}$  and  $\mbox{R}^{5}$  together represent a  $\mbox{C}_{2}\mbox{-}\mbox{C}_{5}$  alkylene group when A represents N; or

20  $R^4$  and  $R^5$  together represent a  $C_2$ - $C_5$  alkylene group containing  $NR^{10}$  or  $NR^{11}$  when A is CH or N, where  $R^{10}$  is hydrogen or an alkyl group having  $C_1$ - $C_4$  carbon atoms and  $R^{11}$  is

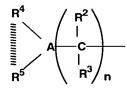


an alkyl group having C<sub>1</sub>-C<sub>4</sub> carbon atoms or

R<sup>7</sup> represents hydrogen or an alkyl or alkenyl group having C<sub>1</sub>-C<sub>5</sub> carbon atoms; R<sup>8</sup> represents an alkyl or alkenyl group having C<sub>4</sub>-C<sub>36</sub> carbon atoms or –COR<sup>9</sup>, where R<sup>9</sup> represents an alkyl or alkenyl group having C<sub>3</sub>-C<sub>35</sub> carbon atoms; and n is an integer from 1 to 3, and where the compound is acid-blocked.

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2. The compound of claim 1, wherein R1 is hydrogen or



3. The compound of claim 1, wherein R<sup>2</sup> and R<sup>3</sup> are hydrogen.

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- 4. The compound of claim 1, wherein  $R^4$  and  $R^5$  are alkyl groups having  $C_1$ - $C_6$  carbon atoms when A represents N.
- 5. The compound of claim 1, wherein R⁴ and R⁵ together represent -CH₂CH₂N(CH₃)CH₂-.
  - 6. The compound of claim 1, wherein R<sup>7</sup> is hydrogen.
- 7. The compound of claim 1, wherein R<sup>8</sup> is an alkyl or alkenyl group having C<sub>4</sub>-C<sub>22</sub> carbon atoms or -COR<sup>9</sup>.
  - 8. The compound of claim 1, wherein  $R^9$  is an alkyl or alkenyl group having  $C_3$ - $C_{22}$  carbon atoms.
  - 9. The compound of claim 1, wherein n is 2 or 3.
    - 10. The compound of claim 1, wherein the compound is selected from the group consisting of N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-octadecyl ether) amine, N-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-octadecyl ether) amine, N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-hexadecyl ether) amine, N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-hexadecyl ether) amine, N,N-bis-(3-

dimethylaminopropyl)-N-(2-hydroxypropyl-tetradecyl ether) amine, N-(3dimethylaminopropyl)-N-(2-hydroxypropyl-tetradecyl ether) amine, N,N-bis-(3dimethylaminopropyl)-N-(2-hydroxypropyl-dodecyl ether) amine, N-(3dimethylaminopropyl)-N-(2-hydroxypropyl-dodecyl ether) amine, N,N-bis-(3-5 dimethylaminopropyl)-N-(2-hydroxypropyl-decyl ether) amine, N-(3dimethylaminopropyl)-N-(2-hydroxypropyl-decyl ether) amine, N,N-bis-(3dimethylaminopropyl)-N-(2-hydroxypropyl-octyl ether) amine, N-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-octyl ether) amine, N,N-bis-(3-dimethylaminopropyl)-N-(2hydroxypropyl-2-ethylhexyl ether) amine, N-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-10 2-ethylhexyl ether) amine, N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-hexyl ether) amine, N-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-hexyl ether) amine, N,Nbis-(3-dimethylaminopropyl)-N-(2-hexanol) amine, N-(3-dimethylaminopropyl)-N-(2hexanol) amine, N,N-bis-(3-dimethylaminopropyl)-N-(2-octanol) amine, N-(3dimethylaminopropyl)-N-(2-octanol) amine, N,N-bis-(3-dimethylaminopropyl)-N-(2-15 decanol) amine, N-(3-dimethylaminopropyl)-N-(2-decanol) amine, N,N-bis-(3dimethylaminopropyl)-N-(2-dodecanol) amine. N-(3-dimethylaminopropyl)-N-(2dodecanol) amine, N,N-bis-(3-dimethylaminopropyl)-N-(2-tetradecanol) amine, N-(3dimethylaminopropyl)-N-(2-tetradecanol) amine, N,N-bis-(3-dimethylaminopropyl)-N-(2hexadecanol) amine, N-(3-dimethylaminopropyl)-N-(2-hexadecanol) amine, N,N-bis-(3-20 dimethylaminopropyl)-N-(2-octadecanol) amine, N-(3-dimethylaminopropyl)-N-(2octadecanol) amine; N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl butyl ether) amine; and N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-neodecanoic ester) amine.

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11. The compound of claim 10, wherein the compound is selected from the group consisting of N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-octadecyl ether) amine, N-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-octadecyl ether) amine, N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-hexadecyl ether) amine, N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-tetradecyl ether) amine, N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-tetradecyl ether) amine, N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-dodecyl ether) amine, N-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-dodecyl ether) amine, N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-dodecyl ether) amine, N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-dodecyl ether) amine, N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-decyl ether) amine, N-(3-

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dimethylaminopropyl)-N-(2-hydroxypropyl-decyl ether) amine, N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-octyl ether) amine, N-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-octyl ether) amine, N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-2-ethylhexyl ether) amine, N-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-hexyl ether) amine, N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-hexyl ether) amine, N-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-hexyl ether) amine; N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl butyl ether) amine; and N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-neodecanoic ester) amine.

- 12. The compound of claim 11, wherein the compound is N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl butyl ether) amine.
  - 13. The compound of claim 11, wherein the compound is N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-2-ethylhexyl ether) amine.
  - 14. The compound of claim 11, wherein the compound is N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-tetradecyl ether) amine.
- 15. The compound of claim 11, wherein the compound is N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-dodecyl ether) amine.
  - 16. The compound of claim 11, wherein the compound is N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-neodecanoic ester) amine.
- 25 17. The compound of claim 11, wherein the compound is a mixture of N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-tetradecyl ether) amine and N,N-bis-(3-dimethylaminopropyl)-N-(2-hydroxypropyl-dodecyl ether) amine.
- 18. The compound of Claim 1 in which the composition is acid-blocked with a30 carboxylic acid.
  - 19. The compound of Claim 18 in which the carboxylic acid is formic acid, acetic acid, 2-ethyl-hexanoic acid, gluconic acid, or N-(2-hydroxyethyl)-iminodiacetic acid.

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